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Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX **El Paso:** T104704221-08-TX **Midland:** T104704392-08-TX
LELAP-02003 LELAP-02002
Kansas E-10317

Analytical and Quality Control Report

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Report Date: September 4, 2009

Work Order: 9082611



Project Name: HELSTF Chromate Spill Groundwater

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
207812	HLSF-0143-HMW-041-0809	water	2009-08-24	10:15	2009-08-24

Comment(s)

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 76 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Notes:

For inorganic analyses, the term MQL should actually read PQL.

Standard Flags

- U** - Not detected. The analyte is not detected above the SDL.
- J** - Estimated. The analyte is positively identified and the value is approximated between the SDL and MQL.
- B** - The sample contains less than ten times the concentration found in the method blank.
- JB** - The analyte is positively identified and the value is approximated between the SDL and MQL.
The sample contains less than ten times the concentration found in the method blank.
The result should be considered non-detect to the SDL.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Case Narrative

Samples for project HELSTF Chromate Spill Groundwater were received by TraceAnalysis, Inc. on 2009-08-24 and assigned to work order 9082611. Samples for work order 9082611 were received intact without headspace and at a temperature of 14.0 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Ag, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Alkalinity	SM 2320B	53964	2009-09-01 at 13:00	63228	2009-09-01 at 13:00
Al, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Ammonia	SM 4500-NH3 B,C	53864	2009-08-31 at 10:45	63111	2009-08-31 at 16:00
As, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Ba, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Be, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Bromide (IC)	E 300.0	53722	2009-08-26 at 11:39	62950	2009-08-26 at 17:34
Ca, Total	S 6010B	53818	2009-08-31 at 09:55	63131	2009-09-01 at 14:24
Cd, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Chloride (IC)	E 300.0	53722	2009-08-26 at 11:39	62950	2009-08-26 at 17:34
Chromium, Hexavalent	SM 3500-Cr B	53774	2009-08-24 at 17:30	63013	2009-08-24 at 17:30
Co, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Cr, Dissolved	S 6010B	53950	2009-09-03 at 08:06	63220	2009-09-03 at 10:38
Cr, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Cu, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Explosives (8330)	S 8330-C18	53708	2009-08-26 at 15:00	62929	2009-08-26 at 18:52
Fe, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Fluoride (IC)	E 300.0	53722	2009-08-26 at 11:39	62950	2009-08-26 at 17:34
Hg, Total	S 7470A	53720	2009-08-27 at 12:36	62974	2009-08-27 at 16:05
K, Total	S 6010B	53818	2009-08-31 at 09:55	63131	2009-09-01 at 14:24
Mg, Total	S 6010B	53818	2009-08-31 at 09:55	63131	2009-09-01 at 14:24
Mn, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Mo, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Na, Total	S 6010B	53818	2009-08-31 at 09:55	63131	2009-09-01 at 14:24
Ni, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Nitrate and Nitrite as N	SM 4500-NO3 E	53917	2009-08-28 at 11:24	63168	2009-08-28 at 11:26
O/G	E 1664	54005	2009-09-01 at 10:47	63270	2009-09-02 at 13:25
Pb, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
pH	SM 4500-H+	53838	2009-08-25 at 10:30	63079	2009-08-25 at 10:30
P, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Sb, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Semivolatiles	S 8270C	53805	2009-08-28 at 15:00	63035	2009-08-28 at 16:42
Se, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
SO4 (IC)	E 300.0	53722	2009-08-26 at 11:39	62950	2009-08-26 at 17:34
TDS	SM 2540C	53968	2009-08-27 at 11:08	63232	2009-08-27 at 11:08
TKN	E 351.3	53865	2009-08-31 at 12:00	63112	2009-08-31 at 19:00
Tl, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
TOC	SM 5310C	54014	2009-09-04 at 14:42	63285	2009-09-04 at 14:42
Total Cyanide	SM 4500-CN C,E	53840	2009-08-31 at 10:15	63080	2009-08-31 at 15:15
TPH DRO	Mod. 8015B	53761	2009-08-27 at 15:00	62994	2009-08-27 at 20:00

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
TPH GRO	S 8015B	53703	2009-08-26 at 16:12	62920	2009-08-26 at 16:12
V, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00
Zn, Total	S 6010B	53818	2009-08-31 at 09:55	63055	2009-08-31 at 11:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9082611 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Ag, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 63055 Date Analyzed: 2009-08-31 Analyzed By: RR
 Prep Batch: 53818 Sample Preparation: 2009-08-31 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Silver	U	<0.00111	<0.00500	<0.00111	mg/L	1	0.00111	0.005	0.00111

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 63055 Date Analyzed: 2009-08-31 Analyzed By: RR
 Prep Batch: 53818 Sample Preparation: 2009-08-31 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum		0.175	0.175	<0.00301	mg/L	1	0.00301	0.05	0.00301

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: El Paso
 Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A
 QC Batch: 63228 Date Analyzed: 2009-09-01 Analyzed By: JG
 Prep Batch: 53964 Sample Preparation: Prepared By: JG

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Hydroxide Alkalinity	U	<1.00	<1.00	<1.00	mg/L as CaCo3	1	1.00	1	1
Carbonate Alkalinity	U	<1.00	<1.00	<1.00	mg/L as CaCo3	1	1.00	1	1
Bicarbonate Alkalinity		200	200	<4.00	mg/L as CaCo3	1	4.00	4	4
Total Alkalinity		200	200	<4.00	mg/L as CaCo3	1	4.00	4	4

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Ammonia Analytical Method: SM 4500-NH3 B,C Prep Method: N/A
 QC Batch: 63111 Date Analyzed: 2009-08-31 Analyzed By: AH
 Prep Batch: 53864 Sample Preparation: 2009-08-31 Prepared By: AH

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Ammonia-N	U	<0.353	<1.00	<0.353	mg/L	1	0.353	1	0.353

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: As, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

Sample Preparation: 2009-08-31

Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Arsenic	U	<0.00448	<0.0100	<0.00448	mg/L	1	0.00448	0.01	0.00448

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Ba, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

Sample Preparation: 2009-08-31

Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Barium		0.0120	0.0120	<0.00105	mg/L	1	0.00105	0.005	0.00105

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Be, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

Sample Preparation: 2009-08-31

Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Beryllium	U	<0.000450	<0.00200	<0.000450	mg/L	1	0.000450	0.002	0.00045

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Bromide (IC)

Analytical Method: E 300.0

Prep Method: N/A

QC Batch: 62950 Date Analyzed: 2009-08-26 Analyzed By: SS
 Prep Batch: 53722 Sample Preparation: 2009-08-26 Prepared By: SS

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Bromide	J	1.66	<2.50	<0.960	mg/L	5	0.960	0.5	0.192

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Ca, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 63131 Date Analyzed: 2009-09-01 Analyzed By: RR
 Prep Batch: 53818 Sample Preparation: 2009-08-31 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Calcium		418	418	<1.17	mg/L	10	1.17	1	0.117

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Cd, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 63055 Date Analyzed: 2009-08-31 Analyzed By: RR
 Prep Batch: 53818 Sample Preparation: 2009-08-31 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cadmium	U	<0.000303	<0.00200	<0.000303	mg/L	1	0.000303	0.002	0.000303

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A
 QC Batch: 62950 Date Analyzed: 2009-08-26 Analyzed By: SS
 Prep Batch: 53722 Sample Preparation: 2009-08-26 Prepared By: SS

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		2500	2500	<15.7	mg/L	100	15.7	2.5	0.157

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory:	El Paso	Analytical Method:	SM 3500-Cr B	Prep Method:	N/A
Analysis:	Chromium, Hexavalent	Date Analyzed:	2009-08-24	Analyzed By:	MD
QC Batch:	63013	Sample Preparation:	2009-08-24	Prepared By:	MD
Prep Batch:	53774				

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Hexavalent Chromium		0.647	0.647	<0.00594	mg/L	1	0.00594	0.01	0.00594

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Co, Total	Date Analyzed:	2009-08-31	Analyzed By:	RR
QC Batch:	63055	Sample Preparation:	2009-08-31	Prepared By:	KV
Prep Batch:	53818				

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	<i>U</i>	<0.000822	<0.00200	<0.000822	mg/L	1	0.000822	0.002	0.000822

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3005A
Analysis:	Cr, Dissolved	Date Analyzed:	2009-09-03	Analyzed By:	RR
QC Batch:	63220	Sample Preparation:	2009-09-03	Prepared By:	KV
Prep Batch:	53950				

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Dissolved Chromium		0.393	0.393	<0.000583	mg/L	1	0.000583	0.001	0.000583

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Cr, Total	Date Analyzed:	2009-08-31	Analyzed By:	RR
QC Batch:	63055	Sample Preparation:	2009-08-31	Prepared By:	KV
Prep Batch:	53818				

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Chromium		0.470	0.470	<0.000583	mg/L	1	0.000583	0.005	0.000583

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Cu, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

Sample Preparation: 2009-08-31

Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.000843	<0.00500	<0.000843	mg/L	1	0.000843	0.005	0.000843

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Explosives (8330)

Analytical Method: S 8330-C18

Prep Method: S 3535A

QC Batch: 62929

Date Analyzed: 2009-08-26

Analyzed By: DS

Prep Batch: 53708

Sample Preparation: 2009-08-26

Prepared By: DS

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
HMX	U	<0.123	<0.500	<0.123	µg/L	1	0.123	0.5	0.123
RDX	U	<0.298	<0.500	<0.298	µg/L	1	0.298	0.5	0.298
1,3,5-Trinitrobenzene	U	<0.339	<0.500	<0.339	µg/L	1	0.339	0.5	0.339
1,3-Dinitrobenzene	U	<0.389	<0.500	<0.389	µg/L	1	0.389	0.5	0.389
Nitrobenzene	U	<0.379	<0.500	<0.379	µg/L	1	0.379	0.5	0.379
Tetryl	U	<0.413	<0.500	<0.413	µg/L	1	0.413	0.5	0.413
TNT	U	<0.464	<0.500	<0.464	µg/L	1	0.464	0.5	0.464
4-Amino-DNT	U	<0.319	<0.500	<0.319	µg/L	1	0.319	0.5	0.319
2-Amino-DNT	U	<0.391	<0.500	<0.391	µg/L	1	0.391	0.5	0.391
2,6-DNT	U	<0.323	<0.500	<0.323	µg/L	1	0.323	0.5	0.323
2,4-DNT	U	<0.366	<0.500	<0.366	µg/L	1	0.366	0.5	0.366
2-NT	U	<0.379	<0.500	<0.379	µg/L	1	0.379	0.5	0.379
4-NT	U	<0.398	<0.500	<0.398	µg/L	1	0.398	0.5	0.398
3-NT	U	<0.346	<0.500	<0.346	µg/L	1	0.346	0.5	0.346

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		1.69	µg/L	1	2.50	68	19.8 - 160

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Fe, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

Sample Preparation: 2009-08-31

Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron		0.0590	0.0590	<0.000872	mg/L	1	0.000872	0.01	0.000872

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Fluoride (IC) Analytical Method: E 300.0 Prep Method: N/A
 QC Batch: 62950 Date Analyzed: 2009-08-26 Analyzed By: SS
 Prep Batch: 53722 Sample Preparation: 2009-08-26 Prepared By: SS

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Fluoride	U	<1.02	<2.50	<1.02	mg/L	5	1.02	0.5	0.204

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Hg, Total Analytical Method: S 7470A Prep Method: N/A
 QC Batch: 62974 Date Analyzed: 2009-08-27 Analyzed By: TP
 Prep Batch: 53720 Sample Preparation: 2009-08-27 Prepared By: TP

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Mercury	U	<0.0000329	<0.000200	<0.0000329	mg/L	1	0.0000329	0.0002	3.29e-05

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: K, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 63131 Date Analyzed: 2009-09-01 Analyzed By: RR
 Prep Batch: 53818 Sample Preparation: 2009-08-31 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Potassium		143	143	<1.72	mg/L	10	1.72	1	0.172

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Mg, Total Analytical Method: S 6010B Prep Method: S 3010A

QC Batch:	63131	Date Analyzed:	2009-09-01	Analyzed By:	RR				
Prep Batch:	53818	Sample Preparation:	2009-08-31	Prepared By:	KV				
		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Total Magnesium		776	776	<1.60	mg/L	10	1.60	1	0.16

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory:	Lubbock									
Analysis:	Mn, Total		Analytical Method:		S 6010B		Prep Method:		S 3010A	
QC Batch:	63055		Date Analyzed:		2009-08-31		Analyzed By:		RR	
Prep Batch:	53818		Sample Preparation:		2009-08-31		Prepared By:		KV	
		SDL	MQL	Method						
		Based	Based	Blank						
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	MQL	MDL	
							(Unadjusted)	(Unadjusted)		
Total Manganese	U	<0.000305	<0.00250	<0.000305	mg/L	1	0.000305	0.0025	0.000305	

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory:	Lubbock									
Analysis:	Mo, Total		Analytical Method:		S 6010B		Prep Method:		S 3010A	
QC Batch:	63055		Date Analyzed:		2009-08-31		Analyzed By:		RR	
Prep Batch:	53818		Sample Preparation:		2009-08-31		Prepared By:		KV	
		SDL	MQL	Method						
		Based	Based	Blank				MQL	MDL	
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)	
Total Molybdenum		0.500	0.500	<0.00119	mg/L	1	0.00119	0.01	0.00119	

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory:	Lubbock									
Analysis:	Na, Total		Analytical Method:		S 6010B		Prep Method:		S 3010A	
QC Batch:	63131		Date Analyzed:		2009-09-01		Analyzed By:		RR	
Prep Batch:	53818		Sample Preparation:		2009-08-31		Prepared By:		KV	
		SDL	MQL	Method						
		Based	Based	Blank						
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	MQL	MDL	
								(Unadjusted)	(Unadjusted)	
Total Sodium		3470	3470	<5.00	mg/L	100	5.00	1	0.05	

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Ni, Total
 QC Batch: 63055
 Prep Batch: 53818

Analytical Method: S 6010B
 Date Analyzed: 2009-08-31
 Sample Preparation: 2009-08-31

Prep Method: S 3010A
 Analyzed By: RR
 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	U	<0.00121	<0.00500	<0.00121	mg/L	1	0.00121	0.005	0.00121

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Nitrate and Nitrite as N
 QC Batch: 63168
 Prep Batch: 53917

Analytical Method: SM 4500-NO3 E
 Date Analyzed: 2009-08-28
 Sample Preparation: 2009-08-28

Prep Method: N/A
 Analyzed By: KV
 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate and Nitrite as N		140	140	<17.5	mg/L	500	17.5	0.1	0.035

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: El Paso

Analysis: O/G
 QC Batch: 63270
 Prep Batch: 54005

Analytical Method: E 1664
 Date Analyzed: 2009-09-02
 Sample Preparation: 2009-09-01

Prep Method: N/A
 Analyzed By: MD
 Prepared By: MD

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Oil and Grease	U	<3.60	<5.00	<3.60	mg/L	1	3.60	5	3.6

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: P, Total
 QC Batch: 63055
 Prep Batch: 53818

Analytical Method: S 6010B
 Date Analyzed: 2009-08-31
 Sample Preparation: 2009-08-31

Prep Method: S 3010A
 Analyzed By: RR
 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Phosphorous		0.0310	0.0310	<0.00289	mg/L	1	0.00289	0.025	0.00289

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Pb, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 63055 Date Analyzed: 2009-08-31 Analyzed By: RR
 Prep Batch: 53818 Sample Preparation: 2009-08-31 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Lead	U	<0.00326	<0.00500	<0.00326	mg/L	1	0.00326	0.005	0.00326

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: El Paso
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 63079 Date Analyzed: 2009-08-25 Analyzed By: JG
 Prep Batch: 53838 Sample Preparation: 2009-08-25 Prepared By: JR

Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.44	s.u.	1	

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Sb, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 63055 Date Analyzed: 2009-08-31 Analyzed By: RR
 Prep Batch: 53818 Sample Preparation: 2009-08-31 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Antimony	U	<0.00440	<0.0200	<0.00440	mg/L	1	0.00440	0.02	0.0044

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: Se, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 63055 Date Analyzed: 2009-08-31 Analyzed By: RR
 Prep Batch: 53818 Sample Preparation: 2009-08-31 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Selenium		0.0760	0.0760	<0.00508	mg/L	1	0.00508	0.02	0.00508

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Semivolatiles

QC Batch: 63035

Prep Batch: 53805

Analytical Method: S 8270C

Date Analyzed: 2009-08-28

Sample Preparation: 2009-08-28

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Pyridine	U	<0.000640	<0.00526	<0.000640	mg/L	1.053	0.000640	0.005	0.000608
N-Nitrosodimethylamine	U	<0.000581	<0.00526	<0.000581	mg/L	1.053	0.000581	0.005	0.000552
2-Picoline	U	<0.000430	<0.00526	<0.000430	mg/L	1.053	0.000430	0.005	0.000408
Methyl methanesulfonate	U	<0.000368	<0.00526	<0.000368	mg/L	1.053	0.000368	0.005	0.00035
Ethyl methanesulfonate	U	<0.000472	<0.00526	<0.000472	mg/L	1.053	0.000472	0.005	0.000448
Phenol	U	<0.000536	<0.00526	<0.000536	mg/L	1.053	0.000536	0.005	0.000509
Aniline	U	<0.000728	<0.00526	<0.000728	mg/L	1.053	0.000728	0.005	0.000691
bis(2-chloroethyl)ether	U	<0.000463	<0.00526	<0.000463	mg/L	1.053	0.000463	0.005	0.00044
2-Chlorophenol	U	<0.000565	<0.00526	<0.000565	mg/L	1.053	0.000565	0.005	0.000537
1,3-Dichlorobenzene (meta)	U	<0.000464	<0.00526	<0.000464	mg/L	1.053	0.000464	0.005	0.000441
1,4-Dichlorobenzene (para)	U	<0.000463	<0.00526	<0.000463	mg/L	1.053	0.000463	0.005	0.00044
Benzyl alcohol	U	<0.000566	<0.00526	<0.000566	mg/L	1.053	0.000566	0.005	0.000538
1,2-Dichlorobenzene (ortho)	U	<0.000466	<0.00526	<0.000466	mg/L	1.053	0.000466	0.005	0.000443
2-Methylphenol	U	<0.000764	<0.00526	<0.000764	mg/L	1.053	0.000764	0.005	0.000726
bis(2-chloroisopropyl)ether	U	<0.000530	<0.00526	<0.000530	mg/L	1.053	0.000530	0.005	0.000503
4-Methylphenol / 3-Methylphenol	U	<0.000539	<0.00526	<0.000539	mg/L	1.053	0.000539	0.005	0.000512
N-Nitrosodi-n-propylamine	U	<0.000771	<0.00526	<0.000771	mg/L	1.053	0.000771	0.005	0.000732
Hexachloroethane	U	<0.000534	<0.00526	<0.000534	mg/L	1.053	0.000534	0.005	0.000507
Acetophenone	U	<0.000446	<0.00526	<0.000446	mg/L	1.053	0.000446	0.005	0.000424
Nitrobenzene	U	<0.000490	<0.00526	<0.000490	mg/L	1.053	0.000490	0.005	0.000465
N-Nitrosopiperidine	U	<0.000466	<0.00526	<0.000466	mg/L	1.053	0.000466	0.005	0.000443
Isophorone	U	<0.000652	<0.00526	<0.000652	mg/L	1.053	0.000652	0.005	0.000619
2-Nitrophenol	U	<0.000428	<0.00526	<0.000428	mg/L	1.053	0.000428	0.005	0.000406
2,4-Dimethylphenol	U	<0.000502	<0.00526	<0.000502	mg/L	1.053	0.000502	0.005	0.000477
bis(2-chloroethoxy)methane	U	<0.000455	<0.00526	<0.000455	mg/L	1.053	0.000455	0.005	0.000432
2,4-Dichlorophenol	U	<0.000421	<0.00526	<0.000421	mg/L	1.053	0.000421	0.005	0.0004
1,2,4-Trichlorobenzene	U	<0.000425	<0.00526	<0.000425	mg/L	1.053	0.000425	0.005	0.000404
Benzoic acid	U	<0.00172	<0.00526	<0.00172	mg/L	1.053	0.00172	0.005	0.00163
Naphthalene	U	<0.000515	<0.00526	<0.000515	mg/L	1.053	0.000515	0.005	0.000489
a,a-Dimethylphenethylamine	U	<0.00136	<0.00526	<0.00136	mg/L	1.053	0.00136	0.005	0.00129
4-Chloroaniline	U	<0.000398	<0.00526	<0.000398	mg/L	1.053	0.000398	0.005	0.000378
2,6-Dichlorophenol	U	<0.000510	<0.0105	<0.000510	mg/L	1.053	0.000510	0.01	0.000484
Hexachlorobutadiene	U	<0.000544	<0.00526	<0.000544	mg/L	1.053	0.000544	0.005	0.000517
N-Nitroso-di-n-butylamine	U	<0.000691	<0.00526	<0.000691	mg/L	1.053	0.000691	0.005	0.000656
4-Chloro-3-methylphenol	U	<0.000550	<0.00526	<0.000550	mg/L	1.053	0.000550	0.005	0.000522
2-Methylnaphthalene	U	<0.000445	<0.00526	<0.000445	mg/L	1.053	0.000445	0.005	0.000423
1-Methylnaphthalene	U	<0.000521	<0.00526	<0.000521	mg/L	1.053	0.000521	0.005	0.000495
1,2,4,5-Tetrachlorobenzene	U	<0.000644	<0.00526	<0.000644	mg/L	1.053	0.000644	0.005	0.000612
Hexachlorocyclopentadiene	U	<0.000588	<0.00526	<0.000588	mg/L	1.053	0.000588	0.005	0.000558
2,4,6-Trichlorophenol	U	<0.000836	<0.0105	<0.000836	mg/L	1.053	0.000836	0.01	0.000794

continued ...

sample 207812 continued . . .

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
2,4,5-Trichlorophenol	U	<0.000878	<0.00526	<0.000878	mg/L	1.053	0.000878	0.005	0.000834
2-Chloronaphthalene	U	<0.000438	<0.00526	<0.000438	mg/L	1.053	0.000438	0.005	0.000416
1-Chloronaphthalene	U	<0.000501	<0.00526	<0.000501	mg/L	1.053	0.000501	0.005	0.000476
2-Nitroaniline	U	<0.000800	<0.00526	<0.000800	mg/L	1.053	0.000800	0.005	0.00076
Dimethylphthalate	U	<0.000677	<0.00526	<0.000677	mg/L	1.053	0.000677	0.005	0.000643
Acenaphthylene	U	<0.000617	<0.00526	<0.000617	mg/L	1.053	0.000617	0.005	0.000586
2,6-Dinitrotoluene	U	<0.000674	<0.00526	<0.000674	mg/L	1.053	0.000674	0.005	0.00064
3-Nitroaniline	U	<0.000759	<0.00526	<0.000759	mg/L	1.053	0.000759	0.005	0.000721
Acenaphthene	U	<0.000445	<0.00526	<0.000445	mg/L	1.053	0.000445	0.005	0.000423
2,4-Dinitrophenol	U	<0.000232	<0.00526	<0.000232	mg/L	1.053	0.000232	0.005	0.00022
Dibenzofuran	U	<0.000430	<0.00526	<0.000430	mg/L	1.053	0.000430	0.005	0.000408
Pentachlorobenzene	U	<0.000601	<0.00526	<0.000601	mg/L	1.053	0.000601	0.005	0.000571
4-Nitrophenol	U	<0.00195	<0.0263	<0.00195	mg/L	1.053	0.00195	0.025	0.00185
2,4-Dinitrotoluene	U	<0.000959	<0.00526	<0.000959	mg/L	1.053	0.000959	0.005	0.000911
1-Naphthylamine	U	<0.000724	<0.00526	<0.000724	mg/L	1.053	0.000724	0.005	0.000688
2,3,4,6-Tetrachlorophenol	U	<0.000595	<0.0105	<0.000595	mg/L	1.053	0.000595	0.01	0.000565
2-Naphthylamine	U	<0.000736	<0.00526	<0.000736	mg/L	1.053	0.000736	0.005	0.000699
Fluorene	U	<0.000682	<0.00526	<0.000682	mg/L	1.053	0.000682	0.005	0.000648
4-Chlorophenyl-phenylether	U	<0.000652	<0.00526	<0.000652	mg/L	1.053	0.000652	0.005	0.000619
Diethylphthalate	U	<0.000872	<0.00526	<0.000872	mg/L	1.053	0.000872	0.005	0.000828
4-Nitroaniline	U	<0.000739	<0.00526	<0.000739	mg/L	1.053	0.000739	0.005	0.000702
Diphenylhydrazine	U	<0.000692	<0.00526	<0.000692	mg/L	1.053	0.000692	0.005	0.000657
4,6-Dinitro-2-methylphenol	U	<0.00208	<0.00526	<0.00208	mg/L	1.053	0.00208	0.005	0.00198
Diphenylamine	U	<0.000463	<0.00526	<0.000463	mg/L	1.053	0.000463	0.005	0.00044
4-Bromophenyl-phenylether	U	<0.000579	<0.00526	<0.000579	mg/L	1.053	0.000579	0.005	0.00055
Phenacetin	U	<0.000637	<0.00526	<0.000637	mg/L	1.053	0.000637	0.005	0.000605
Hexachlorobenzene	U	<0.000533	<0.00526	<0.000533	mg/L	1.053	0.000533	0.005	0.000506
4-Aminobiphenyl	U	<0.000555	<0.00526	<0.000555	mg/L	1.053	0.000555	0.005	0.000527
Pentachlorophenol	U	<0.000458	<0.0105	<0.000458	mg/L	1.053	0.000458	0.01	0.000435
Anthracene	U	<0.000451	<0.00526	<0.000451	mg/L	1.053	0.000451	0.005	0.000428
Pentachloronitrobenzene	U	<0.000430	<0.00526	<0.000430	mg/L	1.053	0.000430	0.005	0.000408
Pronamide	U	<0.000501	<0.00526	<0.000501	mg/L	1.053	0.000501	0.005	0.000476
Phenanthrene	U	<0.000577	<0.00526	<0.000577	mg/L	1.053	0.000577	0.005	0.000548
Di-n-butylphthalate	U	<0.000508	<0.00526	<0.000508	mg/L	1.053	0.000508	0.005	0.000483
Fluoranthene	U	<0.000665	<0.00526	<0.000665	mg/L	1.053	0.000665	0.005	0.000632
Benzidine	U	<0.00251	<0.0263	<0.00251	mg/L	1.053	0.00251	0.025	0.00238
Pyrene	U	<0.000761	<0.00526	<0.000761	mg/L	1.053	0.000761	0.005	0.000723
p-Dimethylaminoazobenzene	U	<0.000950	<0.00526	<0.000950	mg/L	1.053	0.000950	0.005	0.000902
Butylbenzylphthalate	U	<0.000468	<0.00526	<0.000468	mg/L	1.053	0.000468	0.005	0.000445
Benzo(a)anthracene	U	<0.000555	<0.00526	<0.000555	mg/L	1.053	0.000555	0.005	0.000527
3,3-Dichlorobenzidine	U	<0.00124	<0.00526	<0.00124	mg/L	1.053	0.00124	0.005	0.00118
Chrysene	U	<0.000672	<0.00526	<0.000672	mg/L	1.053	0.000672	0.005	0.000638
bis(2-ethylhexyl)phthalate	U	<0.000591	<0.00526	<0.000591	mg/L	1.053	0.000591	0.005	0.000561
Di-n-octylphthalate	U	<0.00122	<0.00526	<0.00122	mg/L	1.053	0.00122	0.005	0.00116
Benzo(b)fluoranthene	U	<0.000926	<0.00526	<0.000926	mg/L	1.053	0.000926	0.005	0.000879

continued . . .

sample 207812 continued . . .

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzo(k)fluoranthene	U	<0.000890	<0.00526	<0.000890	mg/L	1.053	0.000890	0.005	0.000845
7,12-Dimethylbenz(a)anthracene	U	<0.00107	<0.00526	<0.00107	mg/L	1.053	0.00107	0.005	0.00102
Benzo(a)pyrene	U	<0.00176	<0.00526	<0.00176	mg/L	1.053	0.00176	0.005	0.00167
3-Methylcholanthrene	U	<0.000956	<0.00526	<0.000956	mg/L	1.053	0.000956	0.005	0.000908
Dibenzo(a,j)acridine	U	<0.00136	<0.00526	<0.00136	mg/L	1.053	0.00136	0.005	0.00129
Indeno(1,2,3-cd)pyrene	U	<0.000908	<0.00526	<0.000908	mg/L	1.053	0.000908	0.005	0.000862
Dibenzo(a,h)anthracene	U	<0.000852	<0.00526	<0.000852	mg/L	1.053	0.000852	0.005	0.000809
Benzo(g,h,i)perylene	U	<0.000999	<0.00526	<0.000999	mg/L	1.053	0.000999	0.005	0.000949

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0190	mg/L	1.053	0.0800	24	10 - 53.1
Phenol-d5		0.0129	mg/L	1.053	0.0800	16	10 - 36.9
Nitrobenzene-d5		0.0325	mg/L	1.053	0.0800	41	23.8 - 108
2-Fluorobiphenyl		0.0281	mg/L	1.053	0.0800	35	15.9 - 127
2,4,6-Tribromophenol		0.0441	mg/L	1.053	0.0800	55	10 - 123
Terphenyl-d14		0.0409	mg/L	1.053	0.0800	51	17.2 - 160

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock
 Analysis: SO4 (IC)
 QC Batch: 62950
 Prep Batch: 53722

Analytical Method: E 300.0
 Date Analyzed: 2009-08-26
 Sample Preparation: 2009-08-26

Prep Method: N/A
 Analyzed By: SS
 Prepared By: SS

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Sulfate		8420	8420	<153	mg/L	1000	153	2.5	0.153

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: El Paso
 Analysis: TDS
 QC Batch: 63232
 Prep Batch: 53968

Analytical Method: SM 2540C
 Date Analyzed: 2009-08-27
 Sample Preparation: 2009-08-27

Prep Method: N/A
 Analyzed By: MD
 Prepared By: JG

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		16200	16200	<5.00	mg/L	1	5.00		5

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: TKN

Analytical Method: E 351.3

Prep Method: N/A

QC Batch: 63112

Date Analyzed: 2009-08-31

Analyzed By: AH

Prep Batch: 53865

Sample Preparation: 2009-08-31

Prepared By: AH

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
		Result	Result	Result					
Total Kjeldahl Nitrogen - N	U	<2.45	<10.0	<2.45	mg/L	1	2.45	10	2.45

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Tl, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

Sample Preparation: 2009-08-31

Prepared By: KV

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
		Result	Result	Result					
Total Thallium	U	<0.00488	<0.0500	<0.00488	mg/L	1	0.00488	0.05	0.00488

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: TOC

Analytical Method: SM 5310C

Prep Method: N/A

QC Batch: 63285

Date Analyzed: 2009-09-04

Analyzed By: KV

Prep Batch: 54014

Sample Preparation: 2009-09-04

Prepared By: KV

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
		Result	Result	Result					
Total Organic Carbon		1.21	1.21	<0.401	mg/L	1	0.401	1	0.401

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: Total Cyanide

Analytical Method: SM 4500-CN C,E

Prep Method: N/A

QC Batch: 63080

Date Analyzed: 2009-08-31

Analyzed By: AH

Prep Batch: 53840

Sample Preparation: 2009-08-31

Prepared By: AH

continued . . .

sample 207812 continued ...

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cyanide	U	<0.0110	<0.0150	<0.0110	mg/L	1	0.0110	0.015	0.011

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: TPH DRO

Analytical Method: Mod. 8015B

Prep Method: N/A

QC Batch: 62994

Date Analyzed: 2009-08-27

Analyzed By:

Prep Batch: 53761

Sample Preparation: 2009-08-27

Prepared By:

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<0.876	<5.00	<0.876	mg/L	1	0.876	5	0.876

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		9.55	mg/L	1	10.0	96	34.4 - 185

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis: TPH GRO

Analytical Method: S 8015B

Prep Method: S 5030B

QC Batch: 62920

Date Analyzed: 2009-08-26

Analyzed By: ER

Prep Batch: 53703

Sample Preparation: 2009-08-26

Prepared By: ER

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.152	<0.200	<0.152	mg/L	1	0.152	0.2	0.152

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0982	mg/L	1	0.100	98	70.8 - 112
4-Bromofluorobenzene (4-BFB)		0.0984	mg/L	1	0.100	98	80 - 109

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory: Lubbock

Analysis:	V, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	63055	Date Analyzed:	2009-08-31	Analyzed By:	RR
Prep Batch:	53818	Sample Preparation:	2009-08-31	Prepared By:	KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Vanadium		0.0190	0.0190	<0.000426	mg/L	1	0.000426	0.005	0.000426

Sample: 207812 - HLSF-0143-HMW-041-0809

Laboratory:	Lubbock		
Analysis:	Zn, Total	Analytical Method:	S 6010B
QC Batch:	63055	Date Analyzed:	2009-08-31
Prep Batch:	53818	Sample Preparation:	2009-08-31

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.00500	0.00500	<0.000465	mg/L	1	0.000465	0.005	0.000465

Method Blank (1)

QC Batch:	62920	Date Analyzed:	2009-08-26	Analyzed By:	ER
Prep Batch:	53703	QC Preparation:	2009-08-26	Prepared By:	ER

Parameter	Flag	Result	Units	Reporting Limits
GRO		<0.152	mg/L	0.152

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0932	mg/L	1	0.100	93	70.8 - 112
4-Bromofluorobenzene (4-BFB)		0.0940	mg/L	1	0.100	94	80 - 109

Method Blank (1)

QC Batch:	62920	Date Analyzed:	2009-08-26	Analyzed By:	DS
Prep Batch:	53708	QC Preparation:	2009-08-26	Prepared By:	DS

Parameter	Flag	Result	Units	Reporting Limits
HMX		<0.123	µg/L	0.123
RDX		<0.298	µg/L	0.298
1,3,5-Trinitrobenzene		<0.339	µg/L	0.339

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Parameter	Flag	Result	Units	Reporting Limits
1,3-Dinitrobenzene		<0.389	µg/L	0.389
Nitrobenzene		<0.379	µg/L	0.379
Tetryl		<0.413	µg/L	0.413
TNT		<0.464	µg/L	0.464
4-Amino-DNT		<0.319	µg/L	0.319
2-Amino-DNT		<0.391	µg/L	0.391
2,6-DNT		<0.323	µg/L	0.323
2,4-DNT		<0.366	µg/L	0.366
2-NT		<0.379	µg/L	0.379
4-NT		<0.398	µg/L	0.398
3-NT		<0.346	µg/L	0.346

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		2.62	µg/L	1	2.50	105	19.8 - 160

Method Blank (1)QC Batch: 62950
Prep Batch: 53722Date Analyzed: 2009-08-26
QC Preparation: 2009-08-26Analyzed By: SS
Prepared By: SS

Parameter	Flag	Result	Units	Reporting Limits
Bromide		<0.192	mg/L	0.192

Method Blank (1)QC Batch: 62950
Prep Batch: 53722Date Analyzed: 2009-08-26
QC Preparation: 2009-08-26Analyzed By: SS
Prepared By: SS

Parameter	Flag	Result	Units	Reporting Limits
Chloride		<0.157	mg/L	0.157

Method Blank (1)QC Batch: 62950
Prep Batch: 53722Date Analyzed: 2009-08-26
QC Preparation: 2009-08-26Analyzed By: SS
Prepared By: SS

Parameter	Flag	Result	Units	Reporting Limits
Fluoride		<0.204	mg/L	0.204

Method Blank (1)QC Batch: 62950
Prep Batch: 53722Date Analyzed: 2009-08-26
QC Preparation: 2009-08-26Analyzed By: SS
Prepared By: SS

Parameter	Flag	Result	Units	Reporting Limits
Sulfate		<0.153	mg/L	0.153

Method Blank (1)QC Batch: 62974
Prep Batch: 53720Date Analyzed: 2009-08-27
QC Preparation: 2009-08-27Analyzed By: TP
Prepared By: TP

Parameter	Flag	Result	Units	Reporting Limits
Total Mercury		<0.0000329	mg/L	3.29e-05

Method Blank (1)QC Batch: 62994
Prep Batch: 53761Date Analyzed: 2009-08-27
QC Preparation: 2009-08-27Analyzed By:
Prepared By:

Parameter	Flag	Result	Units	Reporting Limits
DRO		<0.876	mg/L	0.876

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		9.03	mg/L	1	10.0	90	34.4 - 185

Method Blank (1)QC Batch: 63013
Prep Batch: 53774Date Analyzed: 2009-08-24
QC Preparation: 2009-08-24Analyzed By: MD
Prepared By: MD

Parameter	Flag	Result	Units	Reporting Limits
Hexavalent Chromium		<0.010	mg/L	0.00594

Method Blank (1)QC Batch: 63035
Prep Batch: 53805Date Analyzed: 2009-08-28
QC Preparation: 2009-08-28Analyzed By: MN
Prepared By: MN

Parameter	Flag	Result	Units	Reporting Limits
Pyridine		<0.000608	mg/L	0.000608
N-Nitrosodimethylamine		<0.000552	mg/L	0.000552
2-Picoline		<0.000408	mg/L	0.000408
Methyl methanesulfonate		<0.000350	mg/L	0.00035
Ethyl methanesulfonate		<0.000448	mg/L	0.000448
Phenol		<0.000509	mg/L	0.000509
Aniline		<0.000691	mg/L	0.000691
bis(2-chloroethyl)ether		<0.000440	mg/L	0.00044
2-Chlorophenol		<0.000537	mg/L	0.000537
1,3-Dichlorobenzene (meta)		<0.000441	mg/L	0.000441
1,4-Dichlorobenzene (para)		<0.000440	mg/L	0.00044
Benzyl alcohol		<0.000538	mg/L	0.000538
1,2-Dichlorobenzene (ortho)		<0.000443	mg/L	0.000443
2-Methylphenol		<0.000726	mg/L	0.000726
bis(2-chloroisopropyl)ether		<0.000503	mg/L	0.000503
4-Methylphenol / 3-Methylphenol		<0.000512	mg/L	0.000512
N-Nitrosodi-n-propylamine		<0.000732	mg/L	0.000732
Hexachloroethane		<0.000507	mg/L	0.000507
Acetophenone		<0.000424	mg/L	0.000424
Nitrobenzene		<0.000465	mg/L	0.000465
N-Nitrosopiperidine		<0.000443	mg/L	0.000443
Isophorone		<0.000619	mg/L	0.000619
2-Nitrophenol		<0.000406	mg/L	0.000406
2,4-Dimethylphenol		<0.000477	mg/L	0.000477
bis(2-chloroethoxy)methane		<0.000432	mg/L	0.000432
2,4-Dichlorophenol		<0.000400	mg/L	0.0004
1,2,4-Trichlorobenzene		<0.000404	mg/L	0.000404
Benzoic acid		<0.00163	mg/L	0.00163
Naphthalene		<0.000489	mg/L	0.000489
a,a-Dimethylphenethylamine		<0.00129	mg/L	0.00129
4-Chloroaniline		<0.000378	mg/L	0.000378
2,6-Dichlorophenol		<0.000484	mg/L	0.000484
Hexachlorobutadiene		<0.000517	mg/L	0.000517
N-Nitroso-di-n-butylamine		<0.000656	mg/L	0.000656
4-Chloro-3-methylphenol		<0.000522	mg/L	0.000522
2-Methylnaphthalene		<0.000423	mg/L	0.000423
1-Methylnaphthalene		<0.000495	mg/L	0.000495
1,2,4,5-Tetrachlorobenzene		<0.000612	mg/L	0.000612
Hexachlorocyclopentadiene		<0.000558	mg/L	0.000558
2,4,6-Trichlorophenol		<0.000794	mg/L	0.000794
2,4,5-Trichlorophenol		<0.000834	mg/L	0.000834
2-Chloronaphthalene		<0.000416	mg/L	0.000416
1-Chloronaphthalene		<0.000476	mg/L	0.000476
2-Nitroaniline		<0.000760	mg/L	0.00076
Dimethylphthalate		<0.000643	mg/L	0.000643
Acenaphthylene		<0.000586	mg/L	0.000586
2,6-Dinitrotoluene		<0.000640	mg/L	0.00064
3-Nitroaniline		<0.000721	mg/L	0.000721

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Parameter	Flag	Result	Units	Reporting Limits
Acenaphthene		<0.000423	mg/L	0.000423
2,4-Dinitrophenol		<0.000220	mg/L	0.00022
Dibenzofuran		<0.000408	mg/L	0.000408
Pentachlorobenzene		<0.000571	mg/L	0.000571
4-Nitrophenol		<0.00185	mg/L	0.00185
2,4-Dinitrotoluene		<0.000911	mg/L	0.000911
1-Naphthylamine		<0.000688	mg/L	0.000688
2,3,4,6-Tetrachlorophenol		<0.000565	mg/L	0.000565
2-Naphthylamine		<0.000699	mg/L	0.000699
Fluorene		<0.000648	mg/L	0.000648
4-Chlorophenyl-phenylether		<0.000619	mg/L	0.000619
Diethylphthalate		<0.000828	mg/L	0.000828
4-Nitroaniline		<0.000702	mg/L	0.000702
Diphenylhydrazine		<0.000657	mg/L	0.000657
4,6-Dinitro-2-methylphenol		<0.00198	mg/L	0.00198
Diphenylamine		<0.000440	mg/L	0.00044
4-Bromophenyl-phenylether		<0.000550	mg/L	0.00055
Phenacetin		<0.000605	mg/L	0.000605
Hexachlorobenzene		<0.000506	mg/L	0.000506
4-Aminobiphenyl		<0.000527	mg/L	0.000527
Pentachlorophenol		<0.000435	mg/L	0.000435
Anthracene		<0.000428	mg/L	0.000428
Pentachloronitrobenzene		<0.000408	mg/L	0.000408
Pronamide		<0.000476	mg/L	0.000476
Phenanthrene		<0.000548	mg/L	0.000548
Di-n-butylphthalate		<0.000483	mg/L	0.000483
Fluoranthene		<0.000632	mg/L	0.000632
Benzidine		<0.00238	mg/L	0.00238
Pyrene		<0.000723	mg/L	0.000723
p-Dimethylaminoazobenzene		<0.000902	mg/L	0.000902
Butylbenzylphthalate		0.000480	mg/L	0.000445
Benzo(a)anthracene		<0.000527	mg/L	0.000527
3,3-Dichlorobenzidine		<0.00118	mg/L	0.00118
Chrysene		<0.000638	mg/L	0.000638
bis(2-ethylhexyl)phthalate		<0.000561	mg/L	0.000561
Di-n-octylphthalate		<0.00116	mg/L	0.00116
Benzo(b)fluoranthene		<0.000879	mg/L	0.000879
Benzo(k)fluoranthene		<0.000845	mg/L	0.000845
7,12-Dimethylbenz(a)anthracene		<0.00102	mg/L	0.00102
Benzo(a)pyrene		<0.00167	mg/L	0.00167
3-Methylcholanthrene		<0.000908	mg/L	0.000908
Dibenzo(a,j)acridine		<0.00129	mg/L	0.00129
Indeno(1,2,3-cd)pyrene		<0.000862	mg/L	0.000862
Dibenzo(a,h)anthracene		<0.000809	mg/L	0.000809
Benzo(g,h,i)perylene		<0.000949	mg/L	0.000949

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0192	mg/L	1	0.0800	24	10 - 53.1
Phenol-d5		0.0125	mg/L	1	0.0800	16	10 - 36.9
Nitrobenzene-d5		0.0367	mg/L	1	0.0800	46	23.8 - 108
2-Fluorobiphenyl		0.0354	mg/L	1	0.0800	44	15.9 - 127
2,4,6-Tribromophenol		0.0445	mg/L	1	0.0800	56	10 - 123
Terphenyl-d14		0.0540	mg/L	1	0.0800	68	17.2 - 160

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Silver		<0.00111	mg/L	0.00111

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Aluminum		<0.00301	mg/L	0.00301

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Arsenic		<0.00448	mg/L	0.00448

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Barium		<0.00105	mg/L	0.00105

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Beryllium		<0.000450	mg/L	0.00045

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Cadmium		<0.000303	mg/L	0.000303

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Cobalt		<0.000822	mg/L	0.000822

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Chromium		<0.000583	mg/L	0.000583

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Copper		<0.000843	mg/L	0.000843

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Iron		<0.000872	mg/L	0.000872

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Manganese		<0.000305	mg/L	0.000305

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Molybdenum		<0.00119	mg/L	0.00119

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Nickel		<0.00121	mg/L	0.00121

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Phosphorous		<0.00289	mg/L	0.00289

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Lead		<0.00326	mg/L	0.00326

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Antimony		<0.00440	mg/L	0.0044

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Selenium		<0.00508	mg/L	0.00508

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Thallium		<0.00488	mg/L	0.00488

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Vanadium		<0.000426	mg/L	0.000426

Method Blank (1)QC Batch: 63055
Prep Batch: 53818Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Zinc		<0.000465	mg/L	0.000465

Method Blank (1)QC Batch: 63080
Prep Batch: 53840Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: AH
Prepared By: AH

Parameter	Flag	Result	Units	Reporting Limits
Total Cyanide		<0.0110	mg/L	0.011

Method Blank (1)QC Batch: 63111
Prep Batch: 53864Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: AH
Prepared By: AH

Parameter	Flag	Result	Units	Reporting Limits
Ammonia-N		<0.353	mg/L	0.353

Method Blank (1)QC Batch: 63112
Prep Batch: 53865Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31Analyzed By: AH
Prepared By: AH

Parameter	Flag	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		<2.45	mg/L	2.45

Method Blank (1)QC Batch: 63131
Prep Batch: 53818Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Calcium		<0.117	mg/L	0.117

Method Blank (1)QC Batch: 63131
Prep Batch: 53818Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Potassium		<0.172	mg/L	0.172

Method Blank (1)QC Batch: 63131
Prep Batch: 53818Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Magnesium		<0.160	mg/L	0.16

Method Blank (1)QC Batch: 63131
Prep Batch: 53818Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Sodium		<0.0500	mg/L	0.05

Method Blank (1)QC Batch: 63168
Prep Batch: 53917Date Analyzed: 2009-08-28
QC Preparation: 2009-08-28Analyzed By: KV
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Nitrate and Nitrite as N		<0.0350	mg/L	0.035

Method Blank (1)QC Batch: 63220
Prep Batch: 53950Date Analyzed: 2009-09-03
QC Preparation: 2009-09-03Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Dissolved Chromium		<0.000583	mg/L	0.000583

Method Blank (1)QC Batch: 63228
Prep Batch: 53964Date Analyzed: 2009-09-01
QC Preparation: 2009-09-01Analyzed By: JG
Prepared By: JG

Parameter	Flag	Result	Units	Reporting Limits
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1)QC Batch: 63232
Prep Batch: 53968Date Analyzed: 2009-08-27
QC Preparation: 2009-08-27Analyzed By: MD
Prepared By: MD

Parameter	Flag	Result	Units	Reporting Limits
Total Dissolved Solids		<5.00	mg/L	5

Method Blank (1)QC Batch: 63270
Prep Batch: 54005Date Analyzed: 2009-09-02
QC Preparation: 2009-09-01Analyzed By: MD
Prepared By: MD

Parameter	Flag	Result	Units	Reporting Limits
Oil and Grease		<6.20	mg/L	3.6

Method Blank (1)QC Batch: 63285
Prep Batch: 54014Date Analyzed: 2009-09-04
QC Preparation: 2009-09-04Analyzed By: KV
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Organic Carbon		0.571	mg/L	0.401

Duplicate (1) Duplicated Sample: 207812QC Batch: 63079
Prep Batch: 53838Date Analyzed: 2009-08-25
QC Preparation: 2009-08-25Analyzed By: JG
Prepared By: JG

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.44	7.44	s.u.	1	0	1.1

Duplicate (1) Duplicated Sample: 207066QC Batch: 63228
Prep Batch: 53964Date Analyzed: 2009-09-01
QC Preparation: 2009-09-01Analyzed By: JG
Prepared By: JG

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	178	178	mg/L as CaCo3	1	0	20
Total Alkalinity	178	178	mg/L as CaCo3	1	0	20

Duplicate (1) Duplicated Sample: 207812QC Batch: 63232
Prep Batch: 53968Date Analyzed: 2009-08-27
QC Preparation: 2009-08-27Analyzed By: MD
Prepared By: MD

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	17800	16200	mg/L	1	9	10

Laboratory Control Spike (LCS-1)QC Batch: 62920
Prep Batch: 53703Date Analyzed: 2009-08-26
QC Preparation: 2009-08-26Analyzed By: ER
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.974	mg/L	1	1.00	<0.152	97	75.5 - 118

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	0.978	mg/L	1	1.00	<0.152	98	75.5 - 118	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0990	0.0966	mg/L	1	0.100	99	97	78.2 - 121
4-Bromofluorobenzene (4-BFB)	0.100	0.0981	mg/L	1	0.100	100	98	82.2 - 118

Laboratory Control Spike (LCS-1)QC Batch: 62929
Prep Batch: 53708Date Analyzed: 2009-08-26
QC Preparation: 2009-08-26Analyzed By: DS
Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
HMX	2.35	µg/L	1	2.50	<0.123	94	63.5 - 125
RDX	2.42	µg/L	1	2.50	<0.298	97	74.5 - 124
1,3,5-Trinitrobenzene	2.38	µg/L	1	2.50	<0.339	95	54.1 - 131
1,3-Dinitrobenzene	2.45	µg/L	1	2.50	<0.389	98	72 - 112
Nitrobenzene	2.48	µg/L	1	2.50	<0.379	99	72.5 - 126
Tetryl	2.32	µg/L	1	2.50	<0.413	93	35.9 - 149
TNT	2.52	µg/L	1	2.50	<0.464	101	40.7 - 129
4-Amino-DNT	2.46	µg/L	1	2.50	<0.319	98	80 - 120
2-Amino-DNT	2.59	µg/L	1	2.50	<0.391	104	80 - 120
2,6-DNT	2.12	µg/L	1	2.50	<0.323	85	80 - 120
2,4-DNT	2.50	µg/L	1	2.50	<0.366	100	80 - 120
2-NT	2.46	µg/L	1	2.50	<0.379	98	49.8 - 139
4-NT	2.43	µg/L	1	2.50	<0.398	97	56.3 - 141
3-NT	2.40	µg/L	1	2.50	<0.346	96	66.2 - 129

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
HMX	2.56	µg/L	1	2.50	<0.123	102	63.5 - 125	9	20
RDX	2.48	µg/L	1	2.50	<0.298	99	74.5 - 124	2	20
1,3,5-Trinitrobenzene	2.48	µg/L	1	2.50	<0.339	99	54.1 - 131	4	20
1,3-Dinitrobenzene	2.47	µg/L	1	2.50	<0.389	99	72 - 112	1	20
Nitrobenzene	2.53	µg/L	1	2.50	<0.379	101	72.5 - 126	2	20
Tetryl	2.45	µg/L	1	2.50	<0.413	98	35.9 - 149	5	20
TNT	2.48	µg/L	1	2.50	<0.464	99	40.7 - 129	2	20
4-Amino-DNT	2.48	µg/L	1	2.50	<0.319	99	80 - 120	1	20
2-Amino-DNT	2.66	µg/L	1	2.50	<0.391	106	80 - 120	3	20
2,6-DNT	2.35	µg/L	1	2.50	<0.323	94	80 - 120	10	20
2,4-DNT	2.61	µg/L	1	2.50	<0.366	104	80 - 120	4	20
2-NT	2.58	µg/L	1	2.50	<0.379	103	49.8 - 139	5	20
4-NT	2.50	µg/L	1	2.50	<0.398	100	56.3 - 141	3	20
3-NT	2.38	µg/L	1	2.50	<0.346	95	66.2 - 129	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
1,2-Dinitrobenzene	2.32	2.52	µg/L	1	2.50	93	101	53 - 134

Laboratory Control Spike (LCS-1)QC Batch: 62950
Prep Batch: 53722Date Analyzed: 2009-08-26
QC Preparation: 2009-08-26Analyzed By: SS
Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromide	4.78	mg/L	1	5.00	<0.192	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromide	4.88	mg/L	1	5.00	<0.192	98	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Prep Batch: 53722

QC Preparation: 2009-08-26

Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	23.7	mg/L	1	25.0	<0.157	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	23.8	mg/L	1	25.0	<0.157	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Prep Batch: 53722

QC Preparation: 2009-08-26

Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Fluoride	4.88	mg/L	1	5.00	<0.204	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Fluoride	4.94	mg/L	1	5.00	<0.204	99	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Prep Batch: 53722

QC Preparation: 2009-08-26

Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	23.9	mg/L	1	25.0	<0.153	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	24.1	mg/L	1	25.0	<0.153	96	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62974

Date Analyzed: 2009-08-27

Analyzed By: TP

Prep Batch: 53720

QC Preparation: 2009-08-27

Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.00102	mg/L	1	0.00100	<0.0000329	102	90.3 - 108

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.00100	mg/L	1	0.00100	<0.0000329	100	90.3 - 108	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62994

Date Analyzed: 2009-08-27

Analyzed By:

Prep Batch: 53761

QC Preparation: 2009-08-27

Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	28.4	mg/L	1	25.0	<0.876	114	74.3 - 158

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	27.4	mg/L	1	25.0	<0.876	110	74.3 - 158	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	9.24	9.14	mg/L	1	10.0	92	91	34.4 - 149

Laboratory Control Spike (LCS-1)QC Batch: 63035
Prep Batch: 53805Date Analyzed: 2009-08-28
QC Preparation: 2009-08-28Analyzed By: MN
Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenol	0.0176	mg/L	1	0.0800	<0.000509	22	10 - 66.5
2-Chlorophenol	0.0397	mg/L	1	0.0800	<0.000537	50	11.2 - 108
1,4-Dichlorobenzene (para)	0.0335	mg/L	1	0.0800	<0.000440	42	16 - 101
N-Nitrosodi-n-propylamine	0.0430	mg/L	1	0.0800	<0.000732	54	10 - 142
1,2,4-Trichlorobenzene	0.0359	mg/L	1	0.0800	<0.000404	45	18 - 118
Naphthalene	0.0370	mg/L	1	0.0800	<0.000489	46	20.2 - 114
4-Chloro-3-methylphenol	0.0587	mg/L	1	0.0800	<0.000522	73	21.5 - 125
Acenaphthylene	0.0484	mg/L	1	0.0800	<0.000586	60	25.8 - 121
Acenaphthene	0.0474	mg/L	1	0.0800	<0.000423	59	33.5 - 122
4-Nitrophenol	0.0208	mg/L	1	0.0800	<0.00185	26	10 - 125
2,4-Dinitrotoluene	0.0546	mg/L	1	0.0800	<0.000911	68	53 - 130
Fluorene	0.0519	mg/L	1	0.0800	<0.000648	65	44.6 - 117
Pentachlorophenol	0.0389	mg/L	1	0.0800	<0.000435	49	10 - 139
Anthracene	0.0533	mg/L	1	0.0800	<0.000428	67	57.5 - 115
Phenanthrene	0.0536	mg/L	1	0.0800	<0.000548	67	55.5 - 118
Fluoranthene	0.0566	mg/L	1	0.0800	<0.000632	71	57 - 122
Pyrene	0.0522	mg/L	1	0.0800	<0.000723	65	58.5 - 130
Benzo(a)anthracene	¹ 0.0496	mg/L	1	0.0800	<0.000527	62	63.4 - 109
Chrysene	0.0528	mg/L	1	0.0800	<0.000638	66	54.7 - 114
Benzo(b)fluoranthene	² 0.0422	mg/L	1	0.0800	<0.000879	53	64.8 - 120
Benzo(k)fluoranthene	0.0707	mg/L	1	0.0800	<0.000845	88	70.3 - 114
Benzo(a)pyrene	0.0590	mg/L	1	0.0800	<0.00167	74	63.7 - 120
Indeno(1,2,3-cd)pyrene	0.0580	mg/L	1	0.0800	<0.000862	72	65.4 - 119
Dibenzo(a,h)anthracene	0.0607	mg/L	1	0.0800	<0.000809	76	68.7 - 117
Benzo(g,h,i)perylene	0.0608	mg/L	1	0.0800	<0.000949	76	57.2 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Phenol	0.0182	mg/L	1	0.0800	<0.000509	23	10 - 66.5	3	20
2-Chlorophenol	0.0410	mg/L	1	0.0800	<0.000537	51	11.2 - 108	3	20
1,4-Dichlorobenzene (para)	0.0348	mg/L	1	0.0800	<0.000440	44	16 - 101	4	20
N-Nitrosodi-n-propylamine	0.0437	mg/L	1	0.0800	<0.000732	55	10 - 142	2	20
1,2,4-Trichlorobenzene	0.0365	mg/L	1	0.0800	<0.000404	46	18 - 118	2	20
Naphthalene	0.0372	mg/L	1	0.0800	<0.000489	46	20.2 - 114	0	20
4-Chloro-3-methylphenol	0.0590	mg/L	1	0.0800	<0.000522	74	21.5 - 125	0	20
Acenaphthylene	0.0490	mg/L	1	0.0800	<0.000586	61	25.8 - 121	1	20
Acenaphthene	0.0487	mg/L	1	0.0800	<0.000423	61	33.5 - 122	3	20
4-Nitrophenol	0.0205	mg/L	1	0.0800	<0.00185	26	10 - 125	1	20
2,4-Dinitrotoluene	0.0552	mg/L	1	0.0800	<0.000911	69	53 - 130	1	20

*continued . . .*¹Spike analyte out of control limits. Results biased low. •²Spike analyte out of control limits. Results biased low. •

control spikes continued . . .

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Fluorene	0.0534	mg/L	1	0.0800	<0.000648	67	44.6 - 117	3	20
Pentachlorophenol	0.0386	mg/L	1	0.0800	<0.000435	48	10 - 139	1	20
Anthracene	0.0558	mg/L	1	0.0800	<0.000428	70	57.5 - 115	5	20
Phenanthrene	0.0556	mg/L	1	0.0800	<0.000548	70	55.5 - 118	4	20
Fluoranthene	0.0582	mg/L	1	0.0800	<0.000632	73	57 - 122	3	20
Pyrene	0.0532	mg/L	1	0.0800	<0.000723	66	58.5 - 130	2	20
Benzo(a)anthracene	0.0501	mg/L	1	0.0800	<0.000527	63	63.4 - 109	1	20
Chrysene	0.0544	mg/L	1	0.0800	<0.000638	68	54.7 - 114	3	20
Benzo(b)fluoranthene	³ 0.0447	mg/L	1	0.0800	<0.000879	56	64.8 - 120	6	20
Benzo(k)fluoranthene	0.0738	mg/L	1	0.0800	<0.000845	92	70.3 - 114	4	20
Benzo(a)pyrene	0.0612	mg/L	1	0.0800	<0.00167	76	63.7 - 120	4	20
Indeno(1,2,3-cd)pyrene	0.0569	mg/L	1	0.0800	<0.000862	71	65.4 - 119	2	20
Dibenzo(a,h)anthracene	0.0581	mg/L	1	0.0800	<0.000809	73	68.7 - 117	4	20
Benzo(g,h,i)perylene	0.0600	mg/L	1	0.0800	<0.000949	75	57.2 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
2-Fluorophenol	0.0240	0.0260	mg/L	1	0.0800	30	32	10 - 53.1
Phenol-d5	0.0165	0.0169	mg/L	1	0.0800	21	21	10 - 36.9
Nitrobenzene-d5	0.0407	0.0411	mg/L	1	0.0800	51	51	23.8 - 108
2-Fluorobiphenyl	0.0394	0.0407	mg/L	1	0.0800	49	51	15.9 - 127
2,4,6-Tribromophenol	0.0606	0.0609	mg/L	1	0.0800	76	76	10 - 123
Terphenyl-d14	0.0513	0.0525	mg/L	1	0.0800	64	66	17.2 - 160

Laboratory Control Spike (LCS-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

QC Preparation: 2009-08-31

Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.123	mg/L	1	0.125	<0.00111	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.124	mg/L	1	0.125	<0.00111	99	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

QC Preparation: 2009-08-31

Prepared By: KV

³Spike analyte out of control limits. Results biased low. •

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	0.939	mg/L	1	1.00	<0.00301	94	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Aluminum	0.942	mg/L	1	1.00	<0.00301	94	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Arsenic	0.477	mg/L	1	0.500	<0.00448	95	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Arsenic	0.487	mg/L	1	0.500	<0.00448	97	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Barium	0.998	mg/L	1	1.00	<0.00105	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Barium	1.00	mg/L	1	1.00	<0.00105	100	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Beryllium	0.0240	mg/L	1	0.0250	<0.000450	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Beryllium	0.0247	mg/L	1	0.0250	<0.000450	99	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cadmium	0.255	mg/L	1	0.250	<0.000303	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cadmium	0.258	mg/L	1	0.250	<0.000303	103	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.247	mg/L	1	0.250	<0.000822	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cobalt	0.250	mg/L	1	0.250	<0.000822	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Chromium	0.0970	mg/L	1	0.100	<0.000583	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Chromium	0.0990	mg/L	1	0.100	<0.000583	99	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.123	mg/L	1	0.125	<0.000843	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Copper	0.130	mg/L	1	0.125	<0.000843	104	85 - 115	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	0.451	mg/L	1	0.500	<0.000872	90	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Iron	0.450	mg/L	1	0.500	<0.000872	90	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.259	mg/L	1	0.250	<0.000305	104	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Manganese	0.259	mg/L	1	0.250	<0.000305	104	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	0.541	mg/L	1	0.500	<0.00119	108	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Molybdenum	0.541	mg/L	1	0.500	<0.00119	108	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	0.255	mg/L	1	0.250	<0.00121	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Nickel	0.257	mg/L	1	0.250	<0.00121	103	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Phosphorous	0.473	mg/L	1	0.500	<0.00289	95	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Phosphorous	0.480	mg/L	1	0.500	<0.00289	96	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

QC Preparation: 2009-08-31

Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Lead	0.493	mg/L	1	0.500	<0.00326	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Lead	0.498	mg/L	1	0.500	<0.00326	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

QC Preparation: 2009-08-31

Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Antimony	0.242	mg/L	1	0.250	<0.00440	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Antimony	0.251	mg/L	1	0.250	<0.00440	100	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Prep Batch: 53818

QC Preparation: 2009-08-31

Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Selenium	0.443	mg/L	1	0.500	<0.00508	89	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Selenium	0.441	mg/L	1	0.500	<0.00508	88	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Thallium	0.511	mg/L	1	0.500	<0.00488	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Thallium	0.524	mg/L	1	0.500	<0.00488	105	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Vanadium	0.245	mg/L	1	0.250	<0.000426	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Vanadium	0.248	mg/L	1	0.250	<0.000426	99	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.218	mg/L	1	0.250	<0.000465	87	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	0.226	mg/L	1	0.250	<0.000465	90	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63131
Prep Batch: 53818

Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Calcium	51.6	mg/L	1	50.0	<0.117	103	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Calcium	50.4	mg/L	1	50.0	<0.117	101	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63131
Prep Batch: 53818

Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	52.6	mg/L	1	50.0	<0.172	105	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	52.1	mg/L	1	50.0	<0.172	104	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63131
Prep Batch: 53818

Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Magnesium	51.0	mg/L	1	50.0	<0.160	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Magnesium	48.7	mg/L	1	50.0	<0.160	97	85 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63131
Prep Batch: 53818

Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	52.7	mg/L	1	50.0	<0.0500	105	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	52.7	mg/L	1	50.0	<0.0500	105	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63220
Prep Batch: 53950

Date Analyzed: 2009-09-03
QC Preparation: 2009-09-03

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Chromium	0.100	mg/L	1	0.100	<0.000583	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Chromium	0.0995	mg/L	1	0.100	<0.000583	100	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63270
Prep Batch: 54005

Date Analyzed: 2009-09-02
QC Preparation: 2009-09-01

Analyzed By: MD
Prepared By: MD

Param		LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Oil and Grease	⁴	23.9	mg/L	1	40.0	<3.60	60	78 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD Limit
Oil and Grease	⁵	21.5	mg/L	1	40.0	<3.60	54	78 - 114	11

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 63285

Date Analyzed: 2009-09-04

Analyzed By: KV

Prep Batch: 54014

QC Preparation: 2009-09-04

Prepared By: KV

Param		LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Organic Carbon		53.2	mg/L	1	50.0	<0.401	106	89.5 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD Limit
Total Organic Carbon		53.4	mg/L	1	50.0	<0.401	107	89.5 - 114	0

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 62920

Date Analyzed: 2009-08-26

Analyzed By: ER

Prep Batch: 53703

QC Preparation: 2009-08-26

Prepared By: ER

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1.02	mg/L	1	1.00	<0.152	102	48.4 - 136

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD Limit
GRO	⁶	0.672	mg/L	1	1.00	<0.152	67	48.4 - 136	41

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	⁷	0.0934	0.0679	mg/L	1	0.1	93	68	70.3 - 129

continued ...

⁴SPECIAL: Sodium Sulfate may have caused low LCS and LCSD recovery. Results may be biased low. •

⁵SPECIAL: Sodium Sulfate may have caused low LCS and LCSD recovery. Results may be biased low. •

⁶MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

⁷Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued . . .

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	⁸ 0.0934	0.0677	mg/L	1	0.1	93	68	82.5 - 118

Matrix Spike (MS-1) Spiked Sample: 207825

QC Batch: 62950 Date Analyzed: 2009-08-26 Analyzed By: SS
 Prep Batch: 53722 QC Preparation: 2009-08-26 Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromide	272	mg/L	50	250	<9.60	109	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromide	265	mg/L	50	250	<9.60	106	90 - 110	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207825

QC Batch: 62950 Date Analyzed: 2009-08-26 Analyzed By: SS
 Prep Batch: 53722 QC Preparation: 2009-08-26 Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	1420	mg/L	50	1250	138	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	1400	mg/L	50	1250	138	101	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207825

QC Batch: 62950 Date Analyzed: 2009-08-26 Analyzed By: SS
 Prep Batch: 53722 QC Preparation: 2009-08-26 Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Fluoride	⁹ 290	mg/L	50	250	<10.2	115	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

⁸Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.⁹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Fluoride	267	mg/L	50	250	<10.2	106	90 - 110	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207825

QC Batch: 62950 Date Analyzed: 2009-08-26 Analyzed By: SS
Prep Batch: 53722 QC Preparation: 2009-08-26 Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	1470	mg/L	50	1250	179	103	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	1460	mg/L	50	1250	179	102	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1) Spiked Sample:

QC Batch: 62974 Date Analyzed: 2009-08-27 Analyzed By: TP
Prep Batch: 53720 QC Preparation: 2009-08-27 Prepared By: TP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.00101	mg/L	1	0.00100	<0.0000329	101	80 - 116

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.00101	mg/L	1	0.00100	<0.0000329	101	80 - 116	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207813

QC Batch: 62994 Date Analyzed: 2009-08-27 Analyzed By:
Prep Batch: 53761 QC Preparation: 2009-08-27 Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	24.9	mg/L	1	25.0	<0.876	100	29.8 - 181

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	26.8	mg/L	1	25.0	<0.876	107	29.8 - 181	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	9.54	9.70	mg/L	1	10	95	97	34.4 - 185

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63013 Date Analyzed: 2009-08-24 Analyzed By: MD
Prep Batch: 53774 QC Preparation: 2009-08-24 Prepared By: MD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Hexavalent Chromium	1.17	mg/L	1.11	0.556	0.647	94	80.1 - 118

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Hexavalent Chromium	1.18	mg/L	1.11	0.556	0.647	96	80.1 - 118	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055 Date Analyzed: 2009-08-31 Analyzed By: RR
Prep Batch: 53818 QC Preparation: 2009-08-31 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.128	mg/L	1	0.125	<0.00111	102	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.138	mg/L	1	0.125	<0.00111	110	75 - 125	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055 Date Analyzed: 2009-08-31 Analyzed By: RR
Prep Batch: 53818 QC Preparation: 2009-08-31 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	1.18	mg/L	1	1.00	0.175	100	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Aluminum	1.17	mg/L	1	1.00	0.175	100	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Arsenic	0.500	mg/L	1	0.500	<0.00448	100	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Arsenic	0.499	mg/L	1	0.500	<0.00448	100	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Barium	1.02	mg/L	1	1.00	0.012	101	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Barium	1.02	mg/L	1	1.00	0.012	101	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Beryllium	0.0240	mg/L	1	0.0250	<0.000450	96	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Beryllium	0.0230	mg/L	1	0.0250	<0.000450	92	75 - 125	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cadmium	0.215	mg/L	1	0.250	<0.000303	86	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cadmium	0.239	mg/L	1	0.250	<0.000303	96	75 - 125	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.218	mg/L	1	0.250	<0.000822	87	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cobalt	0.229	mg/L	1	0.250	<0.000822	92	75 - 125	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Chromium	0.574	mg/L	1	0.100	0.47	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Chromium	0.569	mg/L	1	0.100	0.47	99	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.133	mg/L	1	0.125	<0.000843	106	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Copper	0.134	mg/L	1	0.125	<0.000843	107	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	0.532	mg/L	1	0.500	0.059	95	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Iron	0.537	mg/L	1	0.500	0.059	96	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.227	mg/L	1	0.250	<0.000305	91	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Manganese	0.227	mg/L	1	0.250	<0.000305	91	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	1.02	mg/L	1	0.500	0.5	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Molybdenum	1.02	mg/L	1	0.500	0.5	104	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	0.216	mg/L	1	0.250	<0.00121	86	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Nickel	0.227	mg/L	1	0.250	<0.00121	91	75 - 125	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Phosphorous	0.512	mg/L	1	0.500	0.031	96	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Phosphorous	0.513	mg/L	1	0.500	0.031	96	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Lead	0.513	mg/L	1	0.500	<0.00326	103	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Lead	0.489	mg/L	1	0.500	<0.00326	98	75 - 125	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Antimony	0.243	mg/L	1	0.250	<0.00440	97	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Antimony	0.248	mg/L	1	0.250	<0.00440	99	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Selenium	0.565	mg/L	1	0.500	0.076	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Selenium	0.563	mg/L	1	0.500	0.076	97	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Thallium	0.425	mg/L	1	0.500	<0.00488	85	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Thallium	0.429	mg/L	1	0.500	<0.00488	86	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Vanadium	0.257	mg/L	1	0.250	0.019	95	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Vanadium	0.256	mg/L	1	0.250	0.019	95	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63055
Prep Batch: 53818

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.239	mg/L	1	0.250	0.005	94	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	0.234	mg/L	1	0.250	0.005	92	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 208427

QC Batch: 63080
Prep Batch: 53840

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: AH
Prepared By: AH

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cyanide	0.129	mg/L	1	0.120	<0.0110	108	66.3 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cyanide	0.135	mg/L	1	0.120	<0.0110	112	66.3 - 125	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 208427

QC Batch: 63111
Prep Batch: 53864

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: AH
Prepared By: AH

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Ammonia-N	5.77	mg/L	1	5.00	0.392	108	57.2 - 133

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ammonia-N	5.32	mg/L	1	5.00	0.392	98	57.2 - 133	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207065

QC Batch: 63112
Prep Batch: 53865

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: AH
Prepared By: AH

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N	46.2	mg/L	1	50.0	3.08	86	61.2 - 118

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N	44.8	mg/L	1	50.0	3.08	83	61.2 - 118	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63131
Prep Batch: 53818

Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Calcium	469	mg/L	1	50.0	418	102	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Calcium	467	mg/L	1	50.0	418	98	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63131
Prep Batch: 53818

Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	192	mg/L	1	50.0	143	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	187	mg/L	1	50.0	143	88	75 - 125	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63131
Prep Batch: 53818

Date Analyzed: 2009-09-01
QC Preparation: 2009-08-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Magnesium	822	mg/L	1	50.0	776	92	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Magnesium	823	mg/L	1	50.0	776	94	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207812

QC Batch: 63131 Date Analyzed: 2009-09-01 Analyzed By: RR
Prep Batch: 53818 QC Preparation: 2009-08-31 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	3520	mg/L	1	50.0	3470	100	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	3520	mg/L	1	50.0	3470	100	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 208086

QC Batch: 63168 Date Analyzed: 2009-08-28 Analyzed By: KV
Prep Batch: 53917 QC Preparation: 2009-08-28 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate and Nitrite as N ¹⁰	208	mg/L	500	0.200	141	33500	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate and Nitrite as N ¹¹	215	mg/L	500	0.200	141	37000	80 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207065

QC Batch: 63220 Date Analyzed: 2009-09-03 Analyzed By: RR
Prep Batch: 53950 QC Preparation: 2009-09-03 Prepared By: KV

¹⁰Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹¹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Chromium	0.0927	mg/L	1	0.100	<0.000583	93	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Chromium	0.0926	mg/L	1	0.100	<0.000583	93	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 207553

QC Batch: 63285

Date Analyzed: 2009-09-04

Analyzed By: KV

Prep Batch: 54014

QC Preparation: 2009-09-04

Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Organic Carbon	51.7	mg/L	1	50.0	0.763	102	66.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Organic Carbon	51.6	mg/L	1	50.0	0.763	102	66.9 - 121	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-1)

QC Batch: 62920

Date Analyzed: 2009-08-26

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.00	100	80 - 120	2009-08-26

Standard (CCV-2)

QC Batch: 62920

Date Analyzed: 2009-08-26

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.00	100	80 - 120	2009-08-26

Standard (ICV-1)

QC Batch: 62929

Date Analyzed: 2009-08-26

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	496	99	85 - 115	2009-08-26
RDX		µg/L	500	479	96	85 - 115	2009-08-26
1,3,5-Trinitrobenzene		µg/L	500	491	98	85 - 115	2009-08-26
1,3-Dinitrobenzene		µg/L	500	506	101	85 - 115	2009-08-26
Nitrobenzene		µg/L	500	505	101	85 - 115	2009-08-26
Tetryl		µg/L	500	484	97	85 - 115	2009-08-26
TNT		µg/L	500	500	100	85 - 115	2009-08-26
4-Amino-DNT		µg/L	500	527	105	85 - 115	2009-08-26
2-Amino-DNT		µg/L	500	561	112	85 - 115	2009-08-26
2,6-DNT		µg/L	500	471	94	85 - 115	2009-08-26
2,4-DNT		µg/L	500	507	101	85 - 115	2009-08-26
2-NT		µg/L	500	518	104	85 - 115	2009-08-26
4-NT		µg/L	500	446	89	85 - 115	2009-08-26
3-NT		µg/L	500	438	88	85 - 115	2009-08-26

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		488	µg/L	1	500	98	85 - 115

Standard (CCV-1)

QC Batch: 62929

Date Analyzed: 2009-08-26

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	498	100	85 - 115	2009-08-26
RDX		µg/L	500	485	97	85 - 115	2009-08-26
1,3,5-Trinitrobenzene		µg/L	500	501	100	85 - 115	2009-08-26
1,3-Dinitrobenzene		µg/L	500	488	98	85 - 115	2009-08-26
Nitrobenzene		µg/L	500	522	104	85 - 115	2009-08-26
Tetryl		µg/L	500	492	98	85 - 115	2009-08-26
TNT		µg/L	500	484	97	85 - 115	2009-08-26
4-Amino-DNT		µg/L	500	496	99	85 - 115	2009-08-26
2-Amino-DNT		µg/L	500	552	110	85 - 115	2009-08-26
2,6-DNT		µg/L	500	453	91	85 - 115	2009-08-26
2,4-DNT		µg/L	500	522	104	85 - 115	2009-08-26
2-NT		µg/L	500	500	100	85 - 115	2009-08-26
4-NT		µg/L	500	455	91	85 - 115	2009-08-26
3-NT		µg/L	500	454	91	85 - 115	2009-08-26

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		474	µg/L	1	500	95	85 - 115

Standard (CCV-1)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	5.00	4.80	96	90 - 110	2009-08-26

Standard (CCV-1)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	23.6	94	90 - 110	2009-08-26

Standard (CCV-1)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	5.00	4.71	94	90 - 110	2009-08-26

Standard (CCV-1)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	23.9	96	90 - 110	2009-08-26

Standard (CCV-2)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	5.00	4.98	100	90 - 110	2009-08-26

Standard (CCV-2)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	23.7	95	90 - 110	2009-08-26

Standard (CCV-2)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	5.00	5.33	107	90 - 110	2009-08-26

Standard (CCV-2)

QC Batch: 62950

Date Analyzed: 2009-08-26

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	23.8	95	90 - 110	2009-08-26

Standard (ICV-1)

QC Batch: 62974

Date Analyzed: 2009-08-27

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00106	106	90 - 110	2009-08-27

Standard (CCV-1)

QC Batch: 62974

Date Analyzed: 2009-08-27

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00102	102	90 - 110	2009-08-27

Standard (CCV-1)

QC Batch: 62994

Date Analyzed: 2009-08-27

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	276	110	80 - 120	2009-08-27

Standard (CCV-2)

QC Batch: 62994

Date Analyzed: 2009-08-27

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	295	118	80 - 120	2009-08-27

Standard (CCV-1)

QC Batch: 63013

Date Analyzed: 2009-08-24

Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hexavalent Chromium		mg/L	0.500	0.493	99	90 - 110	2009-08-24

Standard (CCV-2)

QC Batch: 63013

Date Analyzed: 2009-08-24

Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hexavalent Chromium		mg/L	0.500	0.490	98	90 - 110	2009-08-24

Standard (CCV-1)

QC Batch: 63035

Date Analyzed: 2009-08-28

Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60.0	59.0	98	80 - 120	2009-08-28
1,4-Dichlorobenzene (para)		mg/L	60.0	59.6	99	80 - 120	2009-08-28
2-Nitrophenol		mg/L	60.0	64.9	108	80 - 120	2009-08-28
2,4-Dichlorophenol		mg/L	60.0	68.8	115	80 - 120	2009-08-28
Hexachlorobutadiene		mg/L	60.0	59.0	98	80 - 120	2009-08-28
4-Chloro-3-methylphenol	¹²	mg/L	60.0	76.1	127	80 - 120	2009-08-28
2,4,6-Trichlorophenol		mg/L	60.0	65.0	108	80 - 120	2009-08-28
Acenaphthene		mg/L	60.0	61.1	102	80 - 120	2009-08-28

*continued ...*¹²Control analyte out of CCV control limits. Results biased high for analyte. •

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Diphenylamine		mg/L	60.0	59.9	100	80 - 120	2009-08-28
Pentachlorophenol		mg/L	60.0	56.0	93	80 - 120	2009-08-28
Fluoranthene		mg/L	60.0	58.4	97	80 - 120	2009-08-28
Di-n-octylphthalate		mg/L	60.0	67.2	112	80 - 120	2009-08-28
Benzo(a)pyrene		mg/L	60.0	63.4	106	80 - 120	2009-08-28

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		64.0	mg/L	1	60.0	107	80 - 120
Phenol-d5		57.6	mg/L	1	60.0	96	80 - 120
Nitrobenzene-d5		60.3	mg/L	1	60.0	100	80 - 120
2-Fluorobiphenyl		60.8	mg/L	1	60.0	101	80 - 120
2,4,6-Tribromophenol		71.4	mg/L	1	60.0	119	80 - 120
Terphenyl-d14		59.7	mg/L	1	60.0	100	80 - 120

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.250	0.247	99	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	0.971	97	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	2.00	1.97	98	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	0.991	99	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Beryllium		mg/L	1.00	0.985	98	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cadmium		mg/L	1.00	1.01	101	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	0.966	97	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/L	1.00	1.01	101	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	0.998	100	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.01	101	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.993	99	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.970	97	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	0.973	97	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Phosphorous		mg/L	5.00	4.87	97	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/L	2.00	1.99	100	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Antimony		mg/L	2.00	1.99	100	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Selenium		mg/L	1.00	0.997	100	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Thallium		mg/L	5.00	4.96	99	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Vanadium		mg/L	1.00	1.02	102	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	0.995	100	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.130	104	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	1.01	101	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	1.03	103	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	1.02	102	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Beryllium		mg/L	1.00	1.02	102	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cadmium		mg/L	1.00	1.03	103	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	1.03	103	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/L	1.00	1.04	104	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	1.03	103	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.05	105	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	1.03	103	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	1.01	101	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	1.01	101	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Phosphorous		mg/L	5.00	5.13	103	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/L	1.00	1.04	104	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Antimony		mg/L	1.00	1.02	102	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Selenium		mg/L	1.00	1.02	102	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Thallium		mg/L	1.00	1.05	105	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Vanadium		mg/L	1.00	1.04	104	90 - 110	2009-08-31

Standard (CCV-1)

QC Batch: 63055

Date Analyzed: 2009-08-31

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	1.07	107	90 - 110	2009-08-31

Standard (ICV-1)

QC Batch: 63079

Date Analyzed: 2009-08-25

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.02	100	98 - 102	2009-08-25

Standard (CCV-1)

QC Batch: 63079

Date Analyzed: 2009-08-25

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.02	100	98 - 102	2009-08-25

Standard (ICV-1)

QC Batch: 63080

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cyanide		mg/L	0.120	0.117	98	85 - 115	2009-08-31

Standard (CCV-1)

QC Batch: 63080

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cyanide		mg/L	0.120	0.120	100	85 - 115	2009-08-31

Standard (ICV-1)

QC Batch: 63111

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ammonia-N		mg/L	5.00	4.82	96	85 - 115	2009-08-31

Standard (CCV-1)

QC Batch: 63111

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ammonia-N		mg/L	5.00	4.79	96	85 - 115	2009-08-31

Standard (ICV-1)

QC Batch: 63112

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		mg/L	5.00	4.93	99	85 - 115	2009-08-31

Standard (CCV-1)

QC Batch: 63112

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		mg/L	5.00	5.04	101	85 - 115	2009-08-31

Standard (ICV-1)

QC Batch: 63131

Date Analyzed: 2009-09-01

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Calcium		mg/L	50.0	49.5	99	90 - 110	2009-09-01

Standard (ICV-1)

QC Batch: 63131

Date Analyzed: 2009-09-01

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/L	50.0	51.3	103	90 - 110	2009-09-01

Standard (ICV-1)

QC Batch: 63131

Date Analyzed: 2009-09-01

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Magnesium		mg/L	50.0	48.4	97	90 - 110	2009-09-01

Standard (ICV-1)

QC Batch: 63131

Date Analyzed: 2009-09-01

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/L	50.0	50.2	100	90 - 110	2009-09-01

Standard (CCV-1)

QC Batch: 63131

Date Analyzed: 2009-09-01

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Calcium		mg/L	50.0	48.2	96	90 - 110	2009-09-01

Standard (CCV-1)

QC Batch: 63131

Date Analyzed: 2009-09-01

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/L	50.0	51.4	103	90 - 110	2009-09-01

Standard (CCV-1)

QC Batch: 63131

Date Analyzed: 2009-09-01

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Magnesium		mg/L	50.0	48.1	96	90 - 110	2009-09-01

Standard (CCV-1)

QC Batch: 63131

Date Analyzed: 2009-09-01

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/L	50.0	50.2	100	90 - 110	2009-09-01

Standard (ICV-1)

QC Batch: 63168

Date Analyzed: 2009-08-28

Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate and Nitrite as N		mg/L	0.200	0.184	92	85 - 115	2009-08-28

Standard (CCV-1)

QC Batch: 63168

Date Analyzed: 2009-08-28

Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate and Nitrite as N		mg/L	0.200	0.191	96	85 - 115	2009-08-28

Standard (ICV-1)

QC Batch: 63220

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Chromium		mg/L	1.00	1.04	104	90 - 110	2009-09-03

Standard (CCV-1)

QC Batch: 63220

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Chromium		mg/L	1.00	1.01	101	90 - 110	2009-09-03

Standard (ICV-1)

QC Batch: 63228

Date Analyzed: 2009-09-01

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		90 - 110	2009-09-01
Carbonate Alkalinity		mg/L as CaCo3	0.00	236		90 - 110	2009-09-01
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	8.00		90 - 110	2009-09-01
Total Alkalinity		mg/L as CaCo3	250	244	98	90 - 110	2009-09-01

Standard (CCV-1)

QC Batch: 63228

Date Analyzed: 2009-09-01

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		90 - 110	2009-09-01
Carbonate Alkalinity		mg/L as CaCo3	0.00	240		90 - 110	2009-09-01
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	6.00		90 - 110	2009-09-01
Total Alkalinity		mg/L as CaCo3	250	246	98	90 - 110	2009-09-01

Standard (ICV-1)

QC Batch: 63232

Date Analyzed: 2009-08-27

Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	997	100	90 - 110	2009-08-27

Standard (CCV-1)

QC Batch: 63232

Date Analyzed: 2009-08-27

Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	977	98	90 - 110	2009-08-27

Standard (CCV-2)

QC Batch: 63285

Date Analyzed: 2009-09-04

Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	50.0	52.4	105	80 - 120	2009-09-04

Standard (CCV-3)

QC Batch: 63285

Date Analyzed: 2009-09-04

Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	50.0	51.5	103	80 - 120	2009-09-04

CHAIN OF CUSTODY RECORD

[illegible]

DISTRIBUTION WHITE
PROJECT 1155
FELLOW 3
AND 5
FELLOWS
FELLOWS



119 2806 0082611

CHAIRMAN OF CUSTODY RECORD

[illegible]

CHAIRMAN OF CUSTODY RECORD

[illegible][illegible][illegible]